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UNH Professor to Direct NSF's National Ecological Observatory Network

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Scott Ollinger. Courtesy photo.

DURHAM, N.H. -– Professor Scott Ollinger of the University of New Hampshire's Institute for the Study of Earth, Oceans, and Space (EOS) and the department of natural resources and the environment will serve as the first director of the National Science Foundation's (NSF) National Ecological Observatory Network (NEON).

NEON is a continental-scale observation system for examining critical ecological issues. Currently under construction, the $433-million project is designed to gather and synthesize data on the impacts of climate change, land use change, and invasive species on natural resources and biodiversity. When completed in 2016, data will be collected from 60 strategically located sites across the U.S. (including Alaska, Hawaii and Puerto Rico) using instrument measurements and field sampling.

Ollinger, who specializes in ecosystem ecology and remote sensing, has contributed considerable time and expertise to NEON over the last decade by serving on its board of directors for more than four years and, prior to that, serving as a member of the consortium that designed the seminal observatory system. UNH scientists John Aber, Serita Frey, William McDowell, and Wilfred Wollheim have also been engaged in the development of NEON since its beginnings.

"I first became involved with NEON when it was an ambitious set of ideas about how ecology could be done differently," Ollinger said. "I was fascinated by the concept, so to see it grow into the state-of-the-art science facility that is now being built is very gratifying. I'm honored to have the chance to help NEON achieve its goals and to know that I'll be working alongside such a talented group of people."

Ollinger will be on leave from UNH and heads to NEON headquarters in Boulder, Colorado, in early August. He steps into the role as NEON begins to slowly ramp up its operations/science phase with construction of a handful of observatory sites now completed.

"There are few things that could pry me away from the fantastic colleagues, faculty, and students we have here at UNH," Ollinger said. "Leading NEON as it begins doing science is an exciting opportunity but I'm delighted to know that I'll be returning to UNH—hopefully with new insights and opportunities that will help continue our strength in Earth and environmental sciences."

As the observatory's first director, Ollinger will lead a multi-disciplinary scientific, education, and technical staff to provide highly reliable ecological data, scientific infrastructure, and educational resources to scientists, students, educators, decision makers, and the general public. He will also manage the overall scientific usability and cost effectiveness of the observatory as it becomes operational and serve as principal spokesperson to the scientific community, focusing on developing and supporting a growing NEON user base.

NEON will build and link together 60 sites in 20 regional "eco-climatic domains" across the country. Photo courtesy of NEON.

"Scott's experience with leading and managing large scientific projects, and his demonstrated scientific excellence will ensure that the observatory fulfills its scientific and educational mission," said NEON, Inc. chief executive officer Russ Lea.

John Aber, UNH provost and EOS affiliate professor, added that "Scott is a world-class scientist and a very broad thinker who can provide the kind of integrative, interdisciplinary leadership needed by a continental-scale study of ecological processes. His familiarity with the full range of methodological approaches, from field studies, to regional measurement by remote sensing, to synthesis and prediction through modeling will be a major benefit to the NEON program, and his leadership will have national impacts."

According to Ollinger, NEON grew from the notion that understanding large-scale ecological problems requires a distributed network of sensors that will continually monitor the pulse, composition, and function of ecosystems across the continent. The network, built to operate for at least 30 years, will eventually provide scientists with the capacity to understand aspects of ecosystems that have been impossible through conventional, disparate approaches, and will allow for timely monitoring of large-scale changes in the environment.

For example, one of the important roles NEON will fill is keeping a finger on the pulse of ecological shifts wrought by climate change, such as species distribution, biogeochemical cycles, and the spread of invasive species and vector-borne diseases.

"We don't really have anything in place right now that would adequately detect these changes at the spatial and temporal scales over which they will occur," Ollinger said.

All NEON data and information products will be openly available in near real-time to scientists, educators, students, decision makers, and the public. All of which, Ollinger said, "could really revolutionize the way this kind of work gets done and lead to a lot of discoveries that just aren't possible when important new data are not readily available."

The University of New Hampshire, founded in 1866, is a world-class public research university with the feel of a New England liberal arts college. A land, sea, and space-grant university, UNH is the state's flagship public institution, enrolling 12,200 undergraduate and 2,300 graduate students.

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Photographs to download: http://www.eos.unh.edu/newsimage/ollinger_lg.jpg

http://www.eos.unh.edu/images/newsl_0610/Neon_Domain_Map.jpg

Captions: Scott Ollinger. Courtesy photo.

NEON will build and link together 60 sites in 20 regional "eco-climatic domains" across the country. Photo courtesy of NEON.

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